Getting Started with EAFS

ELECTRONIC ARMIS FILING SYSTEM





The Electronic ARMIS Filing System Development Team

Industry Analysis and Technology Division Wireline Competition Bureau Federal Communications Commission March, 2003

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1 ARMIS Basics

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Welcome to the Electronic ARMIS Filing System (EAFS)

In order to get the most out of the EAFS, you may find it helpful to review some basic facts about the Automated Reporting Management Information System (ARMIS). This chapter presents some history of ARMIS and describes the various ARMIS data categories (reports) and how these data may be useful to you.

What ARMIS is

ARMIS was initiated in 1987 for collecting financial and operational data from the largest incumbent local exchange carriers. Additional ARMIS reports were added in 1991 to collect service quality and network infrastructure information from local exchange carriers subject to price cap regulations, in 1992 for the collection of statistical data formerly included in Form M, and in 1995 for monitoring video dial tone investment, expense and revenue data. (The video dial tone reporting requirement was eliminated by the Telecommunications Act of 1996.) Today, ARMIS consists of ten public reports. The carriers file this data with the FCC annually (on April 1) and it is stored in a database where it can be retrieved in many formats by Commission staff and the public, using the EAFS. This booklet is intended to provide only a very brief overview of ARMIS. Following are brief descriptions of each of the ARMIS reports.

Report 43-01

Annual Summary Report: Provides summary of revenues, expenses, costs; demand data for interstate access; and pole and conduit rental calculation information.

Report 43-02

Uniform System of Accounts (USOA) Report: Shows basic balance sheet, income statement, and cash flow information about the carrier's local telephone operations.

Report 43-03

Joint Cost Report: Shows separated costs of regulated and non-regulated services. Expenses and investments are allocated between these two categories. (Uses the 495A "forecast" and 495B "actual" reports—see below.)

Report 43-04

Access Report: Shows separated costs for state and interstate jurisdictions.

Report 43-05

Service Quality Report: Provides information on the quality of service of the network.

Report 43-06

Customer Satisfaction Report: Provides information on customers' experience with service.

Report 43-07

Infrastructure Report: Provides data about the physical network (switches, lines).

Report 43-08

Operating Data Report: Provides statistics about the public network.

Report 495A

Forecast of Investment Usage Report: Displays forecasts of expected regulated and nonregulated investment usage for the current calendar year and the following two calendar years.

Report 495B

Actual Usage of Investment Report: Displays the actual usage of regulated and nonregulated investment for the prior calendar year.

More detailed descriptions of the ARMIS reports are available through the Commission's ARMIS web site, at http://www.fcc.gov/wcb/armis/>.

The following chart displays the ARMIS report tables currently in effect. (To see table structures for earlier years, download a set of instructions at http://www.fcc.gov/wcb/armis/instructions/>. Links to these sets for past years are provided in the left-side navigation panel entitled "Full Sets of Documents.")

ARMIS Report Tables

Report / Table	Title
43-01	Annual Summary Report
Table I	Cost and Revenue
Table II	Demand Analysis
Table III	Pole and Conduit Rental Calculation Information
43-02	USOA Report
Table C-3	Respondent Corporate Information
Table C-5	Important Changes During the Year
Table B-1	Balance Sheet Accounts
Table B-2	Statement of Cash Flows
Table B-3	Investments in Affiliated Companies
Table B-4	Analysis of Assets Purchased From or Sold to Affiliates
Table B-5	Analysis of Entries in Accumulated Depreciation
Table B-6	Summary of Investment and Accumulated Depreciation By Jurisdiction
Table B-7	Bases of Charges for Depreciation
Table B-10	Accounts Payable to Affiliates
Table I-1	Income Statement Accounts
Table I-2	Analysis of Services Purchased From or Sold to Affiliates
Table I-6	Special Charges
Table I-7	Donations or Payments for Services Rendered by Persons Other Than Employees
43-03	Joint Cost Report
Table I	Regulated / Nonregulated Data

ARMIS Report Tables (Cont'd)

Report / Table	Title
43-04	Access Report
Table I	Separations and Access Data
43-05	Service Quality Report
Table I	Installation and Repair Intervals (Interexchange Access)
Table II	Installation and Repair Intervals (Local Service)
Table III	Common Trunk Blockage
Table IV	Total Switch Downtime
Table IV.A	Occurrences of Two Minutes or More Duration Downtime
Table V	Service Quality Complaints
43-06	Customer Satisfaction Report
Table I	Summary Customer Satisfaction Survey
43-07	Infrastructure Report
Table I	Switching Equipment
Table II	Transmission Facilities
43-08	Operating Data Report
Table I.A	Outside Plant Statistics - Cable & Wire Facilities
Table I.B	Outside Plant Statistics - Other
Table II	Switched Access Lines In Service
Table III	Access Lines In Service By Customer
Table IV	Telephone Calls
495A	Forecast of Investment Usage Report
Table I	Forecast Usage Schedule
Table II	Foredasted Investment Allocation Schedule
Table III	Forecasted Investment Summary Schedule
495B	Actual Usage of Investment Report
Table IV	Actual Apportionment of Investment Dollars Schedule
Table V	Actual Usage of Investment Units Schedule
Table VI	Actual Investment Summary Schedule

Who reports ARMIS data

Not all Incumbent LECs are required to file ARMIS data. The following table depicts the eligibility of a carrier based on its revenues and its status as a price-cap carrier.

	Non Price Cap ILEC	Elective Price Cap ILEC		Mandatory Price Cap ILEC	
Reports Filed	at or above threshold	below threshold	at or above threshold	below threshold	at or above threshold
43-01, 43-08, 495A, 495B	х		х		х
43-02, 43-03, 43-04					х
43-05		х	х	Х	Х
43-06, 43-07				Х	Х

Table Notes:

- 1. No ARMIS reports are required of the approximately 1200 small companies with annual revenues below the current threshold of \$121M. (See Public Notice, DA 03-1649, Released May 13, 2003.)
- Mid-Sized ILECs (holding companies with annual revenues less than \$7.083B) file a reduced version of the 43-01. Also, beginning with 2001 data, Mid-Sized ILECs are relieved of filing the 43-02, 43-03 and 43-04 reports.

2 EAFS Overview

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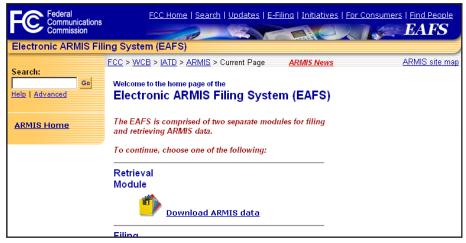
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EAFS—a brief description

The Electronic ARMIS Filing System is a web-based application that allows users with web browsers and Internet access to obtain ARMIS data in various formats. Among these formats are: **preset reports** (canned reports) for financial, service quality, infrastructure data, and the ability to print out or save paper facsimiles of the reports; **customized reports** based on user-selected fields; or, raw data as filed by the carriers in their **ASCII files**. In addition, information about the carriers' filings is available through various **data information reports** and **related documents**. Each of these features is described in more detail throughout this booklet.

Internet Access

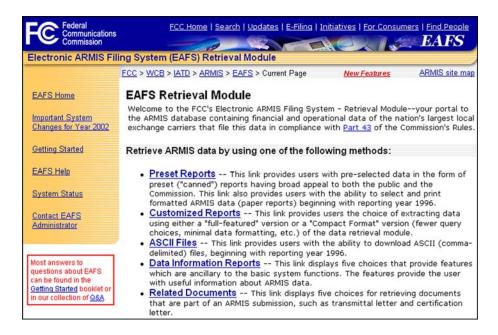
Point your browser to http://www.fcc.gov/wcb/eafs/ and enter the EAFS web site, where you will see, as shown below, the **EAFS Home** page. There you will find links to the Retrieval Module, for downloading data, and the Filing Module, which local exchange carriers use to upload data.



EAFS Home Page

Click on the "Download ARMIS data" link, to display the **EAFS Retrieval Module** menu page, shown on the next page. It is on this page that you will find links to the EAFS data retrieval features.

In addition to the standard FCC web site links shown at the top and bottom of the page, there are several sets of links specifically applicable to EAFS.



EAFS Retrieval Module Page

The first set—located on the left side of the page in the navigation panel—connects to pages that provide general information about the EAFS system. Among these, for example, is a link to an online version of this booklet.

The second set of links—located in the main white space on the page—connect to major EAFS data retrieval features: **Preset Reports**, **Customized Reports**, **ASCII Files**, **Data Information Reports**, and **Related Documents**.

Finally, as enhancements are made to EAFS, they will be announced on a page dedicated to **New Features**, found by clicking on the link of the same name located in the row of short-cut links beneath the standard FCC links at the top of the page.

3 Preset Reports

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To see what each report provides, click on the <u>Info</u> link to the left of the report title.

Preset Reports

Click on Preset Reports (located on the **EAFS Retrieval Module** page) to view a list of preset ("canned") reports having broad appeal to both the public and the Commission. The list includes a link to the paper reports feature, which provides users with the ability to select and print formatted paper reports, beginning with reporting year 1996.

What you need to know

In order to run any of the preset reports, you first need to know some information specific to the report. The following charts list information needed for each of the reports.

Financial preset reports

REPORT	NEEDED INFO
Annual Depreciation Reserve Ratios	Range of Years (1938 - 2001)
Balance Sheet	Incumbent Local Exchange Carrier
Basic Financial Data	Year, Aggregate Rollup Level
Billable Access Lines	Year (1990 - 2001)
Depreciation Reserves for Holding Companies	Year (1990 - 2001)
Holding Company Interstate Rates of Return	Current or Historical Corporate Structure
Income Statement	Incumbent Local Exchange Carrier
Regulated/NonRegulated Revenues and Costs	Range of Years (1990 - 2001), Current or Historical Corporate Structure
Revenue Report	Year (1990 - 2001)

Service quality preset reports

REPORT	NEEDED INFO
Average Installation Intervals in Days	
Percent Local Installation Commitments Met	
Out of Service Repair Intervals in Hours	Class of Service (Residence, Business,
Repeat Out-of-Service Trouble Reports as a Percentage of Initial Out-of-Service Trouble Reports	Combined Res/Bus), Level of Aggregation (e.g All Industry, All RBOCs, Holding Company, State
State Complaints per 1,000,000 Lines	
Total Trouble Reports per Month per 100 Lines	

Infrastructure preset reports

REPORT	NEEDED INFO	
Cable Sheath Investment per Kilometer		
Central-Office-Terminated Loop Plant Ratio of Fiber Strands to Copper Pairs	Aggregation level: by Large ILEC Region, Large ILEC Holding Company, or by State	
Ratio of Total Switched Access Lines in Service to Loop Plant Central-Office-Terminated Fiber Strands		
Switching Investment and Expense per Access Line Served		
Cable Technology Investment and Expense	Aggregation level: by Large ILEC Region, Large ILEC Holding Company, or by State	
(Aerial, Underground& Buried Cable)	Type of Report: Percent Metallic Facilities, Cable Investment, Cable Expense, or Expense- to-Investment Ratio	

Running preset reports

Because the preset reports have very similar input menu screens and output screens, the following applies to all preset reports (except Paper).

To run one of the preset reports:

- 1. Select the preset report from the menu on the EAFS Retrieval Module page. Choose from Financial, Service Quality, or Infrastructure Reports. (The running of Paper Reports will be covered separately.)
- **2.** Fill in the form as required, and then click on the **Submit** button to run the report; click on the **Clear** button to clear the form elements.
- **3.** Report output data is displayed on screen. The display includes a "data run date" at the top left of the screen and a list of the data sources for the report near the bottom of the screen. At the very bottom of the screen is a button for saving the report in Microsoft Excel. If you wish to

customize the appearance of the report, saving it to Excel first is the best way to do so.

As with any browser display, the exact appearance of the report will be subject to your individual browser and its settings, especially certain ones such as text size.

Paper reports

For users requiring a paper version of the ARMIS report, preset paper reports produce a formatted data display which can be saved to Microsoft Excel or, where screen and printer settings allow, directly printed from the web page display. The EAFS preset paper reports have the same titles, headings, footnotes, errata, and exact row/column structures as the paper reports filed by the carriers prior to 2003. Running a paper report is similar to running the other preset reports: each preset paper report menu requires that the user select a **year**, **COSA**, and **table**, and then push the **Submit** button to execute the report.

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Customized Reports

These are the most powerful features in EAFS. This set of reports provides a means for building **individualized data queries**. The customized report input screens, consisting of a series of menus for setting all the variables, provide a means for tailoring a query to meet individual user data requirements.

What you need to know

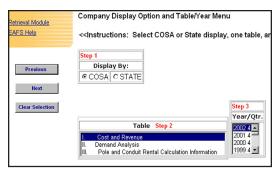
To run any of the customized reports, you will need to know:

- ♦ Year (or years) of desired data
- ◆ Table name or number in ARMIS report
- Aggregation level of data (holding company, operating company or study area)
- COSA or name of reporting entity
- ♦ Row(s) and column(s) in the selected table

Running customized reports

The steps to follow in running a customized report are similar for all reports. The following example shows how to run the 43-01 report:

1. If you have not already done so, click on Customized Reports (located on the EAFS Retrieval Module page). A new menu listing all the customized reports appears. Choose 43-01 from the list. The Company Display Option and Table/Year Menu appears. Fill in the form elements as required, and then click the Next button to advance to the next menu page. For example, select Display by COSA, Table I, and Year 2002, and click Next.



Company Display Option and Table/Year Menu Page

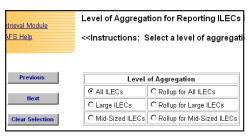
Note: make your selections in order, as indicated by the step numbers in the field titles. Brief instructions are located at the top of the white space just beneath the page title.

2. The Level of Aggregation for Reporting ILECs Menu appears. For illustrative purposes, select All ILECs (the default selection). Click Next to move to the next menu.

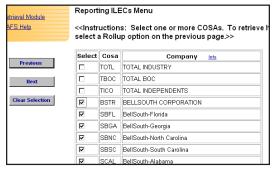


For best results, return to previous menus by clicking on the **Previous** button on any menu.

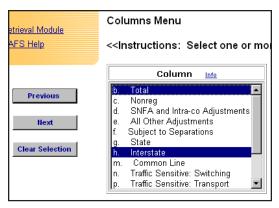
- 3. On the Reporting ILECs
 Menu, select one or more study
 area COSAs—warning: picking a
 large number of COSAs will
 degrade system performance
 significantly. To choose all the
 COSAs in a company's territory,
 select the company COSA. This
 causes the automatic selection of
 all COSAs for that company, as is
 shown in the example for
 BellSouth. Click Next to go on.
- 4. Using the Columns Menu, you decide which columns of data to retrieve and display. If detailed current column descriptions are needed, click on the "Info" link next to the column title at the top of the column selection field. Once you have made selections—in this case, the Total and Interstate columns, click Next, to move on.



Level of Aggregation for Reporting ILECs Menu Page



Company Display Option and Table/Year Menu Page



Columns Menu Page



selection contain Info links to the most

Documents year links on the web page located at http://www.fcc.gov/wcb/

recent sets of instructions. If you are retrieving data for earlier years, refer

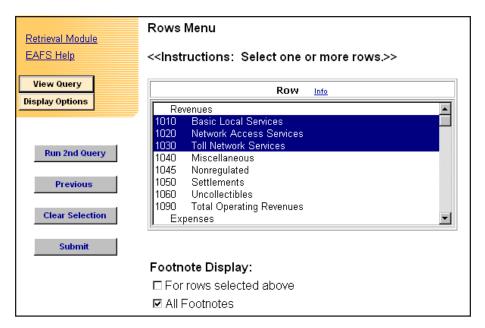
Menu pages for Row and Column

armis/instructions/>. For more information, see Chapter 8, References

instead to the Full Sets of

& Troubleshooting.

- **5.** The first things to notice about the **Rows Menu** (shown below), are the additional choices available. In addition to selecting one or more rows of data to retrieve and display, you can also:
- ◆ Run a 2nd Query on the same or a different customized report
- ♦ View a list of your query selections
- ♦ Set display options (choice of column orientation and whether to display optional columns)
- Select the level of footnotes to display

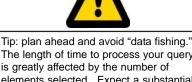


Rows Menu Page

6. Click on the appropriate button or check box to see and select the additional features. If detailed current row descriptions are needed, click on the "Info" link next to the row title at the top of the row selection field.

After selecting the rows and options you want, click on **Submit** to run the report.

7. Report output data is displayed on screen. The display includes a "data run date" at the top left of the screen. At the very bottom of the screen is a button for saving the report in Microsoft Excel. If you wish to customize the appearance of the report, saving it to Excel first is the best way to do so.



The length of time to process your query is greatly affected by the number of elements selected. Expect a substantial delay—or disconnect*— if you set up compound queries having many rows, columns, years or levels of aggregation (rolled-up values). [*The database server times out after 300 seconds.]

As with any browser display, the exact appearance of the report will be subject to your individual browser or its settings, especially certain ones such as text size.

Compact format

At the very bottom of the Customized Reports menu listing of ARMIS reports, is a final selection named "Compact Format (All Reports)." This choice provides streamlined data retrieval for those users requiring quick downloads of large amounts of data who are willing to forgo some features. This mode provides fewer query choices and minimal data formatting. It does not include footnotes, erratum, info links for columns and rows, or options to choose a 2nd query, view query, columns displayed, etc. However, this version is the fastest way to extract large amounts of data, and avoid server time-out.

Click on the Compact Format link, and a page appears which contains all the menus necessary to set up a query: Report Type, Table, Year, COSA/ Company, Columns and Rows. Simply make your selections and hit the Submit button to run the query.

5 ASCII Files

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ASCII format specifications

Users with a special need to obtain ARMIS data in an ASCII file format, may obtain comma-delimited ASCII files directly from the EAFS. The records and fields contained in these ASCII files are based on the specifications published for each of the ARMIS reports.*

^{*}See Chapter 8 for reference locations.

Running the application

To retrieve ARMIS data as ASCII files, click on **ASCII Files** (located on the **EAFS Retrieval Module** page). Then, select a report from the list on the **EAFS ASCII File Download** page. The resulting menu requires only that you select the year and the company name(s) or COSA(s) of the data-filing entity, and then click the **Submit** button.

For example, selecting and submitting year 2001 and SBFL BellSouth - Florida, results in a page listing the Year, Company and Submission number of the ARMIS data, and two buttons: **Display** and **Save As Text**. Clicking on the Display button causes the ASCII file to print to your browser screen, where you can view the data. If you want to download and save the ASCII file to your local drive, click on Save As Text. You will be prompted to provide a path to the local drive / directory, and the file will be saved in an ASCII format. For the example above, the file name of the saved ASCII file is **SBFL01AS.U01**.

6 Data Information Reports

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Data information reports

In addition to basic EAFS functions, these information reports provide the user with useful information about the most recent submissions of ARMIS data. To run these reports, begin by clicking on **Data Information Reports** (located on the **EAFS Retrieval Module** page). This will take you to a menu page. After running a report, results are displayed in your browser, with an option to save in Microsoft Excel format. Following are instructions for running the various reports.

New data—allows the user to identify reports, including submission number, for which data has been loaded into the system on or after a user-specified date. This feature serves as an online status report for the user.

Select an ARMIS Report and choose a year or other filing period (which will depend on the ARMIS report selected). You may select exact periods or ranges of periods, by selecting the applicable logical operators in the drop-down menus. Finally, enter the beginning date of your search time frame, and click **Submit**. Results will include the COSA/company, submission number, and the date the report was loaded into the ARMIS database.

Submission number—provides a history of report submission numbers.

Select an ARMIS Report and choose a year or other filing period (which will depend on the ARMIS report selected). You may select exact periods or ranges of periods, by selecting the applicable logical operators in the drop-down menus. Next, select the submission number or a range of submission numbers, using the logical operator field.



One way to find the submission number of the most recent submission for a company is to set the logical operator to ">" (greater than) with the submission number set to "1." Finally, click the **Submit** button. Results will include the COSA/ company and the latest submission number of the company's report.

Resubmissions—provides a list of ARMIS filings made to change data filed in the initial report, i.e., filings carrying a submission number of 2 or greater.

Select one or more data years and then enter the beginning and ending date range during which ARMIS reports may have been resubmitted. Click the **Submit** button. Results will include, for the date range selected, a listing of **all** ARMIS report resubmissions, and the companies' reasons for resubmitting the data.

Filing information—provides a listing by COSA of filings made for that COSA by year and by report.

Select a COSA/Company Name and click the **Submit** button. Results provide a tabular listing of filing periods during which the carrier filed a given report (43-01 through 43-08 only). Some columns may be blank, indicating that the company has not filed the report. In other columns with dates, the last period listed in the column indicates the most recent filing received.

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Related documents

In addition to ARMIS data, the carriers must also file certain ARMIS-related documents. The documents are contained in Acrobat PDF files which are to be filed electronically, beginning in 2003. Below are general instructions for viewing the documents, followed by brief descriptions of their content.

Viewing the documents

To retrieve and view a document, begin by clicking on **Related Documents** (located on the **EAFS Retrieval Module** page). This will take you to a four-field menu page. First, select the type of document in the **Letter Type** field. Then, select the company, report and year in their respective fields. Click the Submit button and a new menu page will appear, which lists all the documents of the type and company you

selected, for the data filing year you selected.

For example, if on the previous menu you selected Transmittal Letter, BellSouth Corporation, 495B, and year 2002, you will see one or more document identifiers displayed in the **Document** column, all with the same name: "BSTR,2002,495B,TRANS." To differentiate among the documents, refer to the next column, **Sequence No.**, which indicates the order in which the documents were received by the EAFS, and to the **Date Received** column where a date of upload into EAFS is shown. Click on document identifier to view the associated PDF file.

Transmittal letter—every ARMIS submission must be accompanied by a letter of transmittal. This document identifies the ARMIS report, reporting year, COSA, and company/study area name impacted by the filing. For resubmissions, the letter will include the submission number and a brief description of data being corrected. Details on the inclusion of the transmittal letter in the submission are provided in the Specifications* for the reports.

Certification statement—carriers must certify the accuracy of the data submitted in the ARMIS Reports by including a certification statement, signed by a corporate officer. The statement must identify the COSA and company/study area name impacted by the filing. Details on the inclusion of the certification statement in the submission are provided in the Specifications* for the reports.

Audit report—for details, see the 43-03 Report Definition*.

Part 64 letter—for details, see the 43-01 Report Definition*.

495A & 495B "no data" letter—for details, see the 495A or 495B Report Definitions*.

^{*}See Chapter 8 for reference locations.

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References

Instructions governing the structure, content and filing of ARMIS Reports and related documents are available on the ARMIS web site. The following table lists web URLs of major reference locations.

Reference	URL www.fcc.gov/wcb/	Notes
ARMIS Home Page	armis/	
ARMIS instructions - complete set	armis/instructions	Select year in panel headed "Full Sets of Documents."
ARMIS instructions - current row/column	armis/instructions	Select from report list at top of page.
EAFS Home Page	eafs/	
EAFS Retrieval Module	http:// svartifoss2.fcc.gov/ eafs/MainMenu.cfm	Portal to ARMIS database.

Throughout this booklet, reference is made to ARMIS *instructions*. To obtain such instructions online, use the **Full Sets of Documents** year links on the web page located at http://www.fcc.gov/wcb/armis/ instructions/>. Choosing any of the year links and you will arrive at a page containing a tabular listing of instruction files in PDF format. File names with a "p" refer to instruction sets containing specific procedures, form information, and row/column definitions; file names with a "c" refer to complete instruction sets, comprised of both "p" and "s" files. Files with an "s" in the fifth character position of their file names are specifications documents. The file name also indicates the name of the report (first four characters) and data reporting year (6th & 7th characters). For example, the file **4301s02.pdf** contains Report 43-01 specifications for 2002.

Troubleshooting

A number of factors can affect online database operation. Occasionally, the database itself is out of service. To determine status, click on the System Status link in the left-side navigation panel on http://svartifoss2.fcc.gov/eafs/MainMenu.cfm>, the database portal web page.

In the same panel, there is a link to the **EAFS Help** page (http://www.fcc.gov/wcb/eafs/help_index.html), from which you can access several EAFS Help topics, including a **Q&A** section, which will grow into a knowledge base of EAFS user questions and answers.

Finally, if you are unable to find an answer to your ARMIS or EAFS questions on our web site, please contact our ARMIS Help desk, by emailing us at: **armis-hp@fcc.gov**.

Electronic ARMIS Filing System (EAFS)

